



INSTRUCTIONS

-J01837

REV. 6-8-01

Kit Number 27454-01

S.E FLATSLIDE CARB KIT FOR SPORTSTER AND BUELL

General

This kit is designed for use on 1995 and later XL 1200's and all Twin Cylinder Carbureted Buells.

NOTE

On XL Models, you must use SCREAMIN' EAGLE Air Cleaner Kit (Part Number 29041-88B) with this carburetor.

On Buell Models, you must use either AIR CLEANER RACE KIT (Part Number 91421-99Y) or AIR CLEANER RACE KIT (Part Number 29460-96Y) with this carburetor.

See Service Parts Page Illustrations for kit contents.

CAUTION

Harley-Davidson motorcycles equipped with some Screamin' Eagle high-performance parts may not be used on public roads and in some cases must be restricted to closed course competition. This engine related performance part is intended for racing applications and is not legal for sale or use in California on pollution controlled motor vehicles. Engine related performance parts are intended for the experienced rider only.

Removal of Stock Air Cleaner and Carburetor (All Models)

NOTE

Refer to the applicable Service Manual for more detailed instructions when removing the components referenced in Steps 1 through 6. Service Manuals are available from your Harley-Davidson Dealer.

WARNING

To protect against shock and accidental start-up of vehicle, disconnect the negative battery cable before proceeding. Inadequate safety precautions could result in death or serious injury.

WARNING

Always disconnect the negative battery cable first. If the positive cable should contact ground with the negative cable installed, the resulting sparks may cause a battery explosion which could result in death or serious injury.

1. Disconnect negative battery cable first followed by positive cable.
2. Remove stock air cleaner assembly including backplate.

WARNING

Gasoline is extremely flammable and highly explosive under certain conditions. Do not smoke or allow open flame or sparks anywhere in the area when servicing any part of the fuel system. Failure to comply could result in death or serious injury.

3. Turn fuel valve to OFF position. Disconnect fuel line at carb and drain any remaining gas into proper container.
4. On XL Models: Follow instructions in applicable Service Manual and remove fuel tank.

WARNING

Use red fuel storage container only. Storing gas in unapproved container could create a dangerous situation such as leakage, leading to explosion or fire hazard which could result in death or serious injury.

5. Disconnect choke/enrichener cable from mounting bracket on left side of bike.
6. Remove carburetor from manifold.
7. Disconnect throttle (Open and Close) cables at carburetor.

NOTE

This carburetor is designed to work with stock throttle cables, so complete removal of stock cables is NOT required.

8. Disconnect Vacuum Operated Electrical Switch (VOES).
9. Follow instructions in applicable Service Manual and finish removing carburetor.
10. Remove choke/enrichener cable from the carburetor and discard carburetor.

Choke

The carb in this kit uses stock choke cable and stock black plastic nut. Obtain the new carburetor from kit. Remove black plastic nut from kit carburetor and discard it. Remove spring and plunger from carburetor kit and install them on the stock choke cable and attach to kit carb. Discard stock choke spring and plunger. Do not over tighten the plastic nut. Choke adjustment procedures are covered at the end of these instructions.

11. On XL models, perform hose modifications described on the following page.

NOTE

If your installation is for Buell, proceed to Page 4.

XL Models Only

Fuel and Vacuum Hose Modification

NOTE

On XL Models, the Fuel hose and Vacuum Hose must be modified prior to installing to the new carburetor. Perform the following procedures.

1. See Figure 1. Locate and remove the fuel hose from the fuel petcock. Lay the hose on a flat surface and trim 1/2 inch to 5/8 inch of the hose from the end of the bend.
2. Obtain one of the Hose Clamps from kit and using clamp, reinstall end of hose trimmed in previous Step to fuel petcock. Tighten securely.

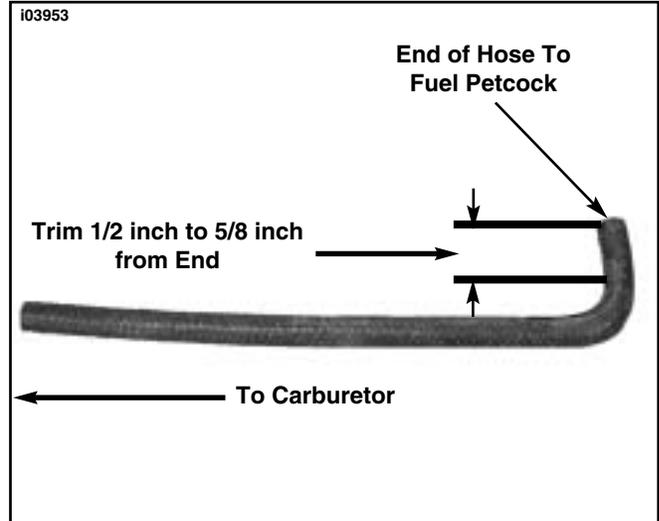


Figure 1. Trim Fuel Hose At Petcock End

3. See Figure 2. Note that Figure 2 represents the current Vacuum hose configuration. The heat shield is installed to Fuel Petcock hose, the short hose routes to V.O.E.S., and the long hose routes to carburetor.

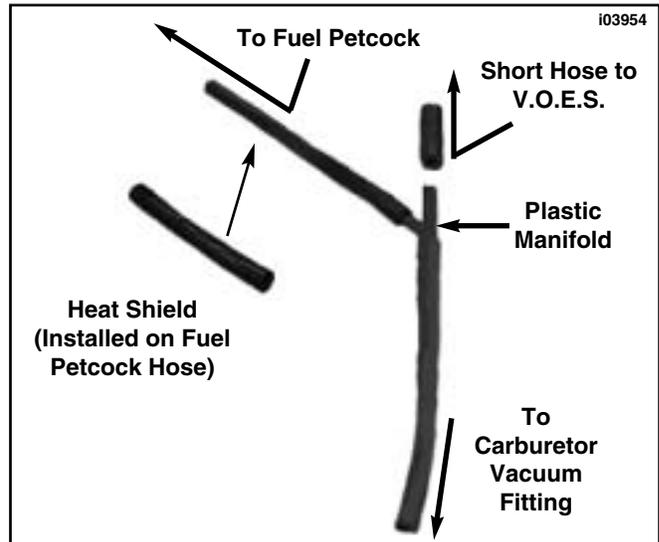


Figure 2. Original Vacuum Hose Configuration

4. See Figure 3. This is the Modified Hose Configuration. **Note the following:**

The heat shield from the petcock hose has been removed and petcock hose has been shortened by 2 inches.

See Figure 3. Obtain heat shield for V.O.E.S. (provided in kit) and install. The V.O.E.S. hose will route behind horn on the left side to the V.O.E.S. vacuum fitting.

The Short hose (old V.O.E.S.) has been removed and replaced by a longer (5-1/4 inch) hose cut from 9 inch hose supplied with new carb. Heat Shield from kit is then installed. This hose will route to the vacuum fitting on carburetor.

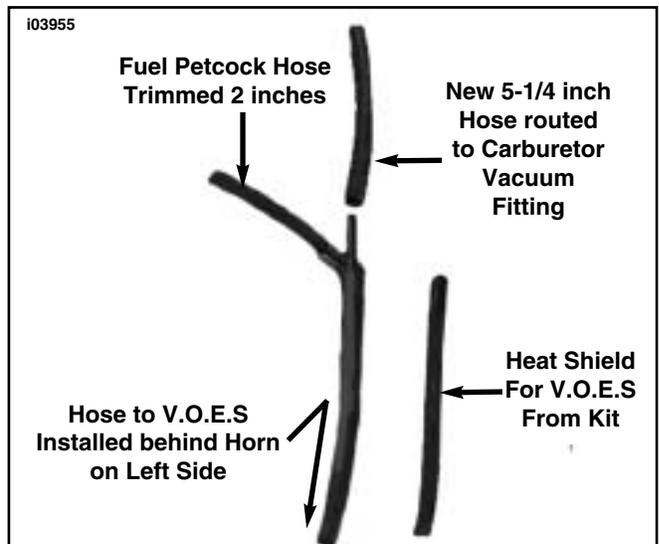


Figure 3. Modified Vacuum Hose Configuration

Carburetor Installation (XL Models)

NOTE

Prior to installing carb, perform initial cable routing as described in Step 1 on Page 5. This will allow the cables to be in position during carburetor installation.

1. Refer to **Cable Routing (XL Models)** on Page 5, and perform Step 1.
2. Screw the cable adjusters together to make them as short as possible.
3. Connect the "close" cable first, then install the "open" cable. See Figure 4 for close-up of cable installation.

NOTE

Before inserting the carburetor into the stock manifold, check the condition of the rubber seal. If the seal is damaged, it must be replaced to prevent air leakage. The fit between the carburetor and the seal ring is tight. For ease of installation it is recommended that the mating surfaces, carburetor body and seal ring be lubricated prior to assembly to reduce surface friction. Use liquid dish soap or tire mounting lube for this purpose.

4. See Figures 3 and 4. Slip the new V.O.E.S./fuel petcock vacuum hose on the carburetor fitting below throttle cable bracket.
5. Lubricate only the inside surface of the seal ring that will be in contact with the carburetor. Insert the carburetor into the manifold.
6. Use a pick or small screwdriver to carefully pry the special retaining washer off the V.O.E.S. Discard retaining washer.
7. See Figure 5. Rotate the V.O.E.S. so that the vacuum line points downward. Note V.O.E.S. and its mounting bracket have indexing bumps and notches that must be aligned.
8. Obtain the new retention washer from kit and install to retain V.O.E.S. in this position.

9. Connect hose shown in Figure 3 to the V.O.E.S.
10. Sandwich the V.O.E.S. assembly between the horn and the top motor mount as shown.
11. Refer to Figure 4 on Page 3. Refer to the applicable Harley-Davidson Service Manual and adjust throttle cables following the instructions given. Adjust throttle cable so throttle valve (slide) opens fully. Lever stop screw should touch carb body at wide open throttle. To adjust lever stop screw, loosen jam nut and turn screw in (clockwise) or out (counterclockwise), respectively.
12. Adjust the opening cable until the slide can be opened fully. Snug the adjuster lock nut.
13. Install the choke to the horn mounting bracket. Perform Backplate Installation procedures on Page 6.
14. Reinstall the fuel tank and connect fuel hose to fuel petcock using remaining new clamp supplied in kit.
15. Connect vacuum hose to fuel petcock.

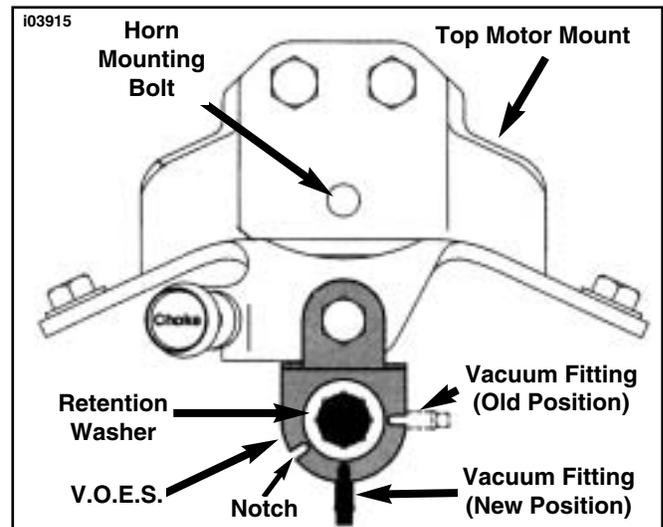


Figure 5. V.O.E.S. Installation

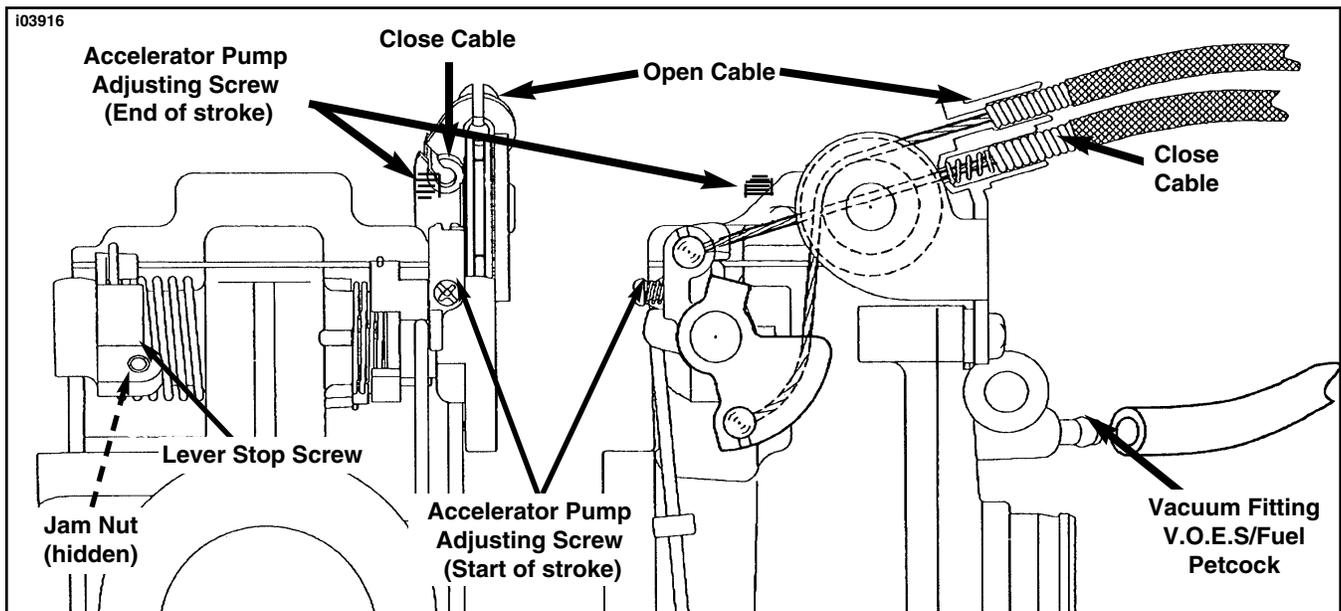


Figure 4. Cable Installation

Carburetor Installation (Buell Models)

NOTE

Prior to installing carb, perform initial cable routing as described under Cable Routing (Buell Models) Step 1 on Page 5. This will allow the cables to be in position during carburetor installation.

1. Refer to **Cable Routing (Buell Models)** on Page 5, and perform Step 1.
2. Screw the cable adjusters together to make them as short as possible.
3. See Figure 6. Remove throttle cable clamps and discard.
4. Connect the “close” cable first, then install the “open” cable. See Figure 4 for close-up of cable installation.
5. Connect V.O.E.S. hose.

NOTE

Before inserting the carburetor into the stock manifold, check the condition of the rubber seal. If the seal is damaged, it must be replaced to prevent air leakage. The fit between the carburetor and the seal ring is tight. For ease of installation it is recommended that the mating surfaces, carburetor body and seal ring be lubricated prior to assembly to reduce surface friction. Use liquid dish soap or tire mounting lube for this purpose.

6. Lubricate only the inside surface of seal ring that will be in contact with the carburetor. Also apply a light coat of lubricant to the spigot of the carburetor body. Push carburetor into seal ring.
7. Connect fuel hose to carburetor using new clamp from kit.
8. Refer to Figure 4 on Page 3. Refer to the applicable Buell Service Manual and adjust throttle cables following the instructions given. Adjust throttle cable so throttle valve (slide) opens fully. Lever stop screw should touch carb body at wide open throttle. To adjust lever stop screw, loosen jam nut and turn screw in (clockwise) or out (counterclockwise), respectively.

NOTE

Turn the handlebar to the right and adjust the throttle free-play with the closing cable adjuster to approximately 1/8 inch.

9. Use cable strap and secure the remote idle adjuster cable to the frame tube.
10. See Figure 7. Route drain hose downward from drain fitting and continue towards rear wheel through the space between the engine rear cylinder and both rear cylinder push rod covers. Continue route downward between gearcase cover and engine crankcase.
11. Install the choke to choke mounting bracket and perform Backplate Installation procedures on Page 6.

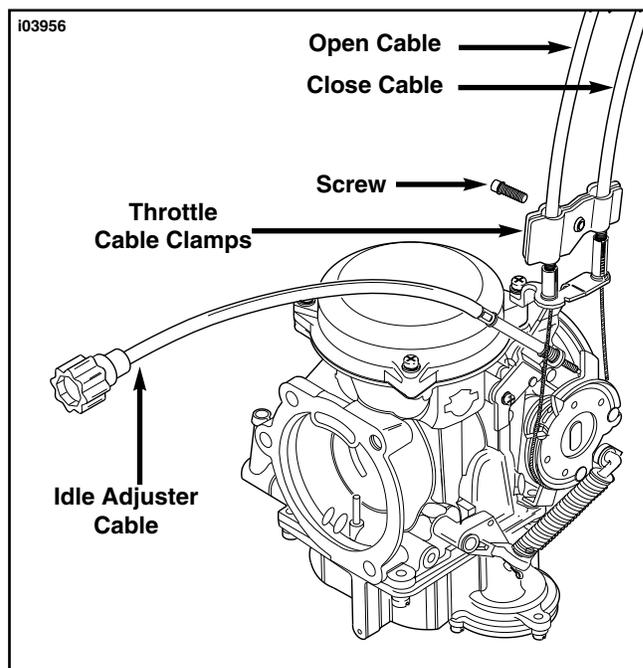


Figure 6. Throttle Cable Installation (Buell)

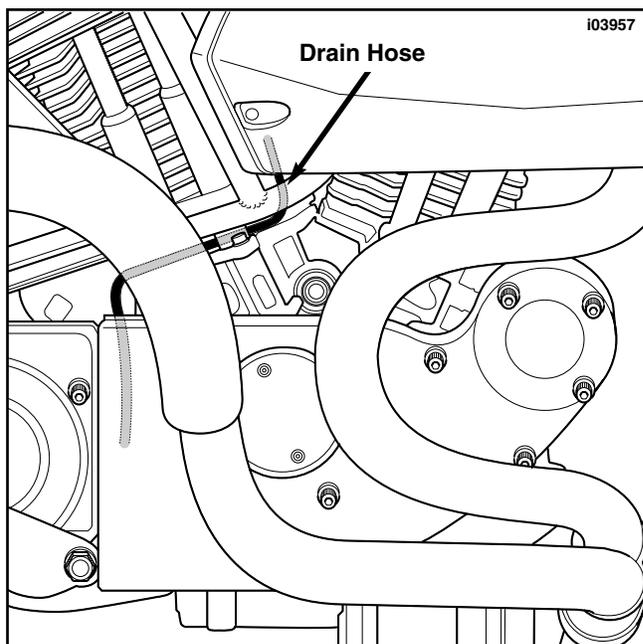


Figure 7. Routing Drain Hose (Buell)

Cable Routing (XL Models)

WARNING

When installing cables to the new carburetor make certain that cables are well lubricated and do not bind when handlebars are turned from lock to lock. Improperly installed throttle cables can affect vehicle operation which could result in death or serious injury.

1. See Figure 8. Route the throttle cables with large radius curves so that they do not interfere with other components.

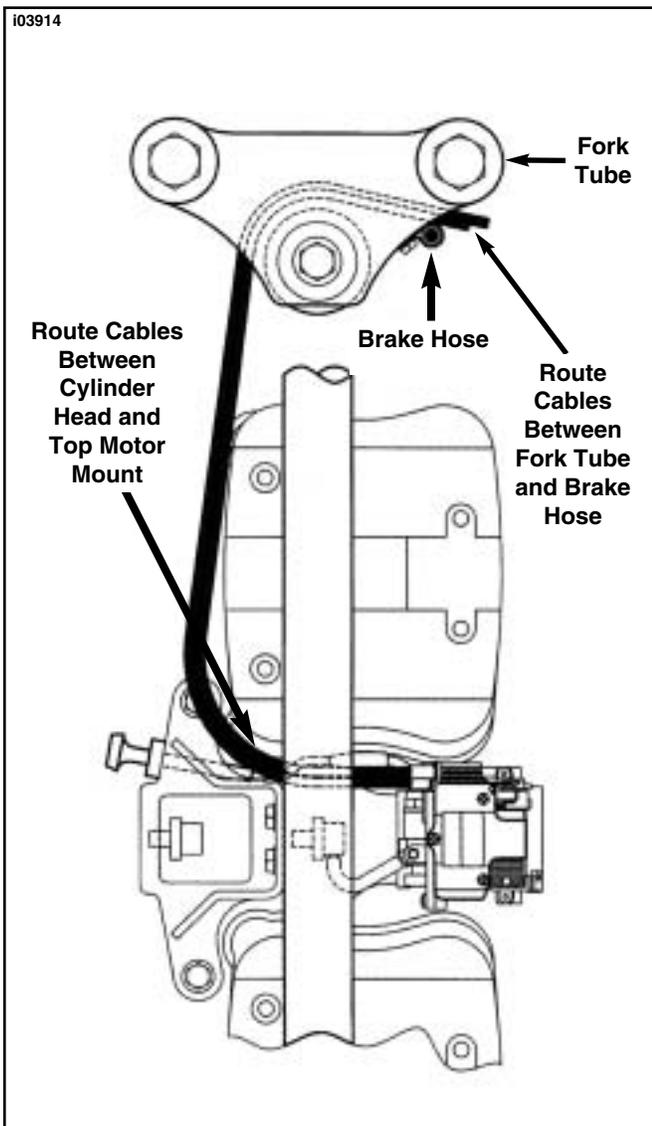


Figure 8. Throttle Cable Routing (XL Models)

Cable Routing (Buell Models)

WARNING

When installing cables to the new carburetor make certain that cables are well lubricated and do not bind when handlebars are turned from lock to lock. Improperly installed throttle cables can affect vehicle operation which could result in death or serious injury.

1. See Figure 9. Route the throttle cables with large radius curves so that they do not interfere with other components.

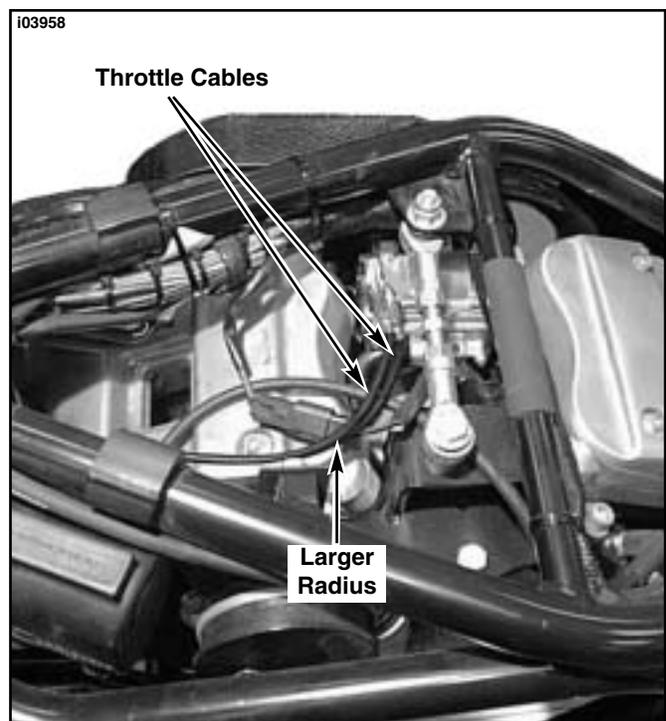


Figure 9. Throttle Cable Routing (Buell Models)

Attaching Adapter To Backplate (XL Models)

CAUTION

In the next step, do not use the stock screws from backplate assembly. The screws are too long and will prevent O-ring sealing interface between adapter and carb.

1. See Service Parts Illustration on Page 7. Insert the large diameter O-ring into the adapter. While "sandwiching the gasket between the adapter and backplate assembly, attach the adapter to the backplate assembly with the screws from SCREAMIN' EAGLE air cleaner kit. Apply 1 or 2 drops of Loctite 243 (blue) on each of the screws.

CAUTION

Before attaching backplate to cylinder heads, check that carb is fully inserted into the manifold. If the carb is not fully seated, air leaks might result.

2. See Service Parts Illustration on Page 7. Refer to Instruction Sheet covering SCREAMIN' EAGLE air cleaner kit and follow instructions given to install air cleaner assembly.

Attaching Adapter To Backplate (Buell Models)

CAUTION

In the next step, Do NOT use the screws from Race Air Cleaner Kits (Part Numbers 91421-99Y and 29460-96Y) to install the adapter. The screws are too long and will prevent O-ring sealing interface between adapter and carb.

CAUTION

Check that carb is fully inserted into the manifold. If the carb is not fully seated, air leaks might result.

1. See Service Parts Illustration on Page 7. Insert the large diameter O-ring into the adapter and install the adapter onto the front of the carburetor.
2. Install the Air Cleaner support bracket to the cylinder heads.
3. Attach the backplate assembly to the adapter using 1/4-20x1/4 inch screws or the stock (original) backplate assembly screws.
4. See Service Parts Illustration on Page 7. Refer to Instruction Sheet covering Buell AIR CLEANER RACE KITS and follow instructions given to install air cleaner assembly.

Choke Adjustment

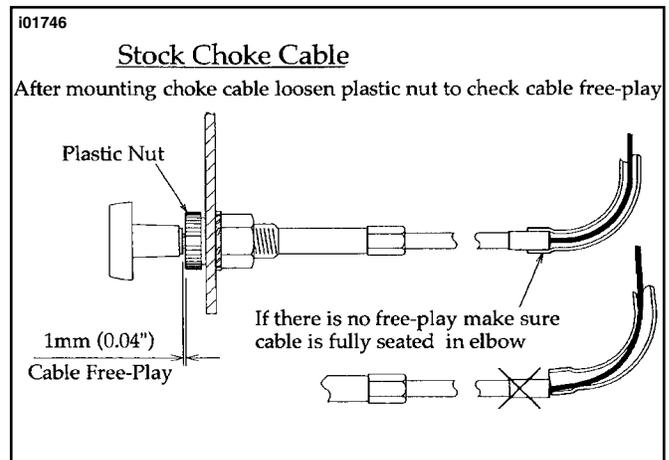


Figure 10. Proper Choke Cable Free Play

Starting

Pull choke out fully, leave throttle closed and crank engine with starter. Push choke knob in as engine warms up and engine runs smoothly.

RECOMMENDED TUNING PROCEDURES

This carburetor is tuned to run well on a majority of Harley-Davidson/Buell engine configurations however, if fine tuning is required for a particular engine configuration, follow the procedures in the tuning instructions supplied with this kit.



Service Parts

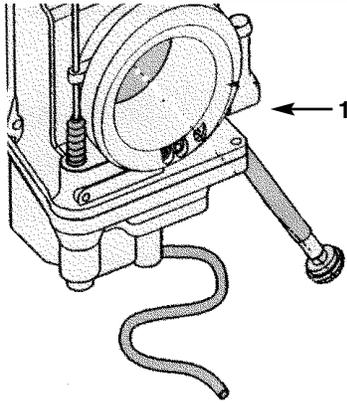
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Date 6/01

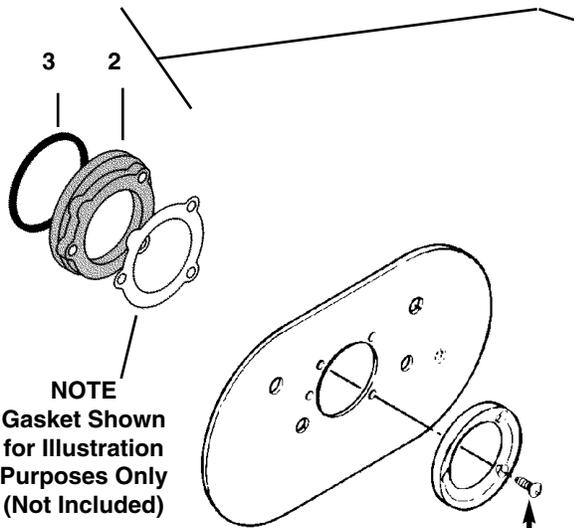
42mm Flatslide Carb Kit

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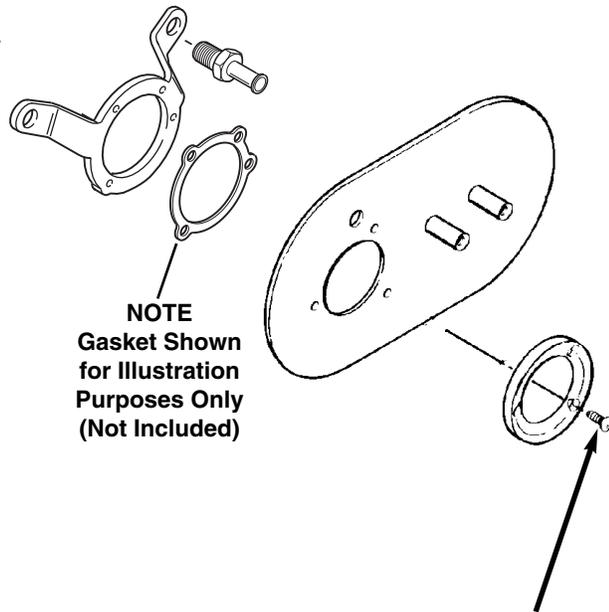


XL Fitment



NOTE
Gasket Shown
for Illustration
Purposes Only
(Not Included)

Buell Fitment



NOTE
Gasket Shown
for Illustration
Purposes Only
(Not Included)

Screws From Screamin'
Eagle Air Cleaner Kit
(Part Number 29041-88B)

Use 1/4-20x1-1/4 inch or
stock (original) Backplate
Assembly Screws.
Do **NOT** use screws from
Race Air Cleaner Kits
(Part Numbers 91421-99Y
and 29461-96Y)

Kit Number 27454-01

Item	Description	Part Number	Item	Description	Part Number
1	Carb Assembly	not sold	6	Hose clamp (2) (not shown)	not sold
2	Adapter	27756-98	7	Cable tie (3)(not shown)	27753-98
3	O-ring	27754-98	8	Washer, retention (not shown)	11192
4	Main jet #155(not shown)	27910-98	9	Hose, vacuum (3/16x5-1/4 inch)	not sold
5	Main jet #165(not shown)	27914-98		(not shown)	



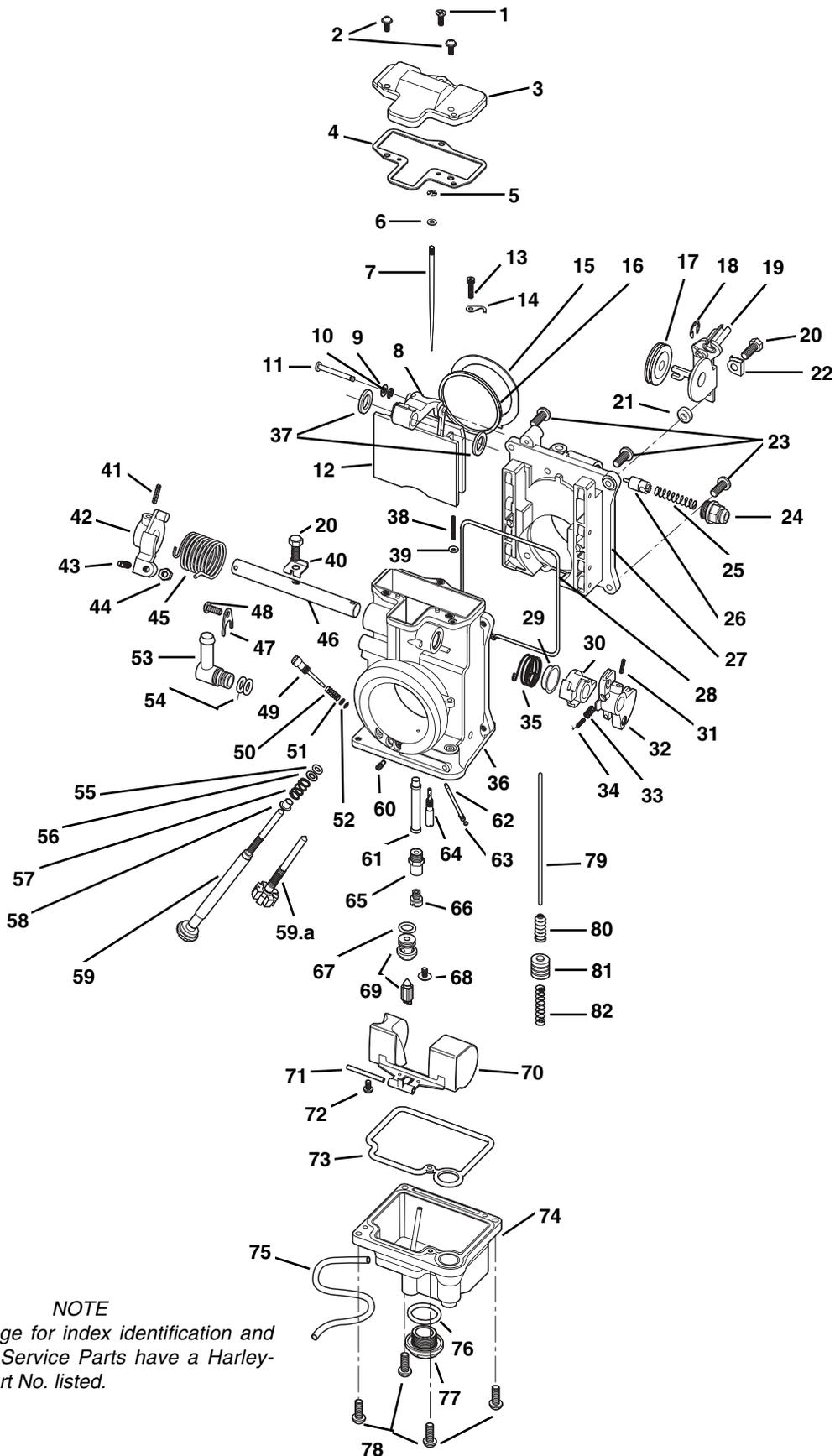
Service Parts

Kit No. 29565-98

Date 6/01

42mm Carb Rebuild Kit

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NOTE

See next page for index identification and description. Service Parts have a Harley-Davidson Part No. listed.



Service Parts

Kit No. 27454-01

Date 6/01

42mm Carb Rebuild kit

Item	Description	Part No.	Item	Description	Part No.
1	Screw, top cover (flat head)		44	Nut, throttle stop	
2	Screw, top cover		45	Spring, throttle return	
3	Top cover		46	Shaft, throttle	
4*	Gasket, top cover	27768-98	47	Plate, fuel joint retainer	
5*	E-ring, jet needle	27761-98	48	Screw, fuel joint retainer	
6*	Washer, needle clip	27760-98	49	Screw, pilot air adjusting	
7	Jet needle (4 sizes available)		50	Spring, pilot air screw	
8	Lever, throttle valve		51	Washer, pilot air screw	
9	E-ring		52*	O-ring, pilot air screw	27765-98
10	Packing link lever		53	Fuel joint	
11	Pin, link lever		54*	O-ring, fuel joint	27771-98
12	Throttle valve		55	Packing, idle adjuster	
13	Screw, needle retaining clip		56	Washer, idle adjuster (Steel)	
14	Clip, needle retainer		57	Spring, idle adjuster	
15	Sealing ring, throttle valve		58	Ring, idle adjuster (Brass)	
16	Seal, throttle valve		59	Idle adjuster ass'y (Long)	
17	Pulley, cable bracket		59a	Idle adjuster screw (Short)	
18	E-ring, cable bracket		60	Air jet (Blank)	
19	Bracket ass'y. cable		61	Needle jet (723 Series)	
20	Bolt		62	Nozzle, accelerator pump	
21	Spacer		63*	O-ring, accelerator pump	27764-98
22	Plate, lock tab		64	Pilot jet	
23	Screw		65	Extender, main jet	
24	Guide holder, starter		66	Main jet	
25	Spring, starter plunger		67*	O-ring, needle valve	27757-98
26	Starter plunger		68*	Screw w/washer, needle valve retainer	27769-98
27	Body ass'y, bearing and spigot (N/A)		69*	Needle valve ass'y w/O-ring	27759-98
28	Seal, spigot body		70	Float assembly	
29	Ring (Steel)		71	Pin, float	
30	Lever, accelerator pump		72	Screw, float pin	
31	Pin, throttle lever		73*	Packing, float bowl	27758-98
32	Lever, throttle		74	Float chamber body	
33	Spring, accelerator pump adjuster		75	Hose, overflow	
34	Screw, accelerator pump adjuster		76*	O-ring, drain plug	27770-98
35	Spring, accelerator pump return		77	Drain plug	
36	Mixing body ass'y (N/A)		78*	Screw, float bowl (4)	27763-98
37	Packing, shaft (plastic)		79	Rod, accelerator pump	
38	Adjusting screw, accelerator pump		80*	Boot, accelerator pump rod	27766-98
39	O-ring, accelerator pump screw		81	Plunger, accelerator pump	
40	Plate, lock tab for shaft		82	Spring, accelerator pump	
41	Pin, throttle stop lever				
42	Lever, throttle stop				
43	Adjusting screw, throttle				

NOTE

Items shown in "bold" and with asterisk (*) are included in Carburetor Rebuild Kit P/N 29565-98.